

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
2 September 2004 (02.09.2004)

PCT

(10) International Publication Number  
**WO 2004/074091 A2**

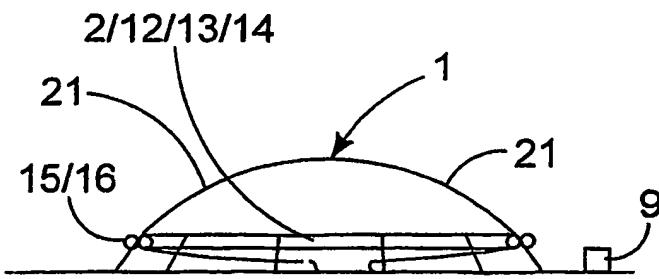
- (51) International Patent Classification<sup>7</sup>: **B64B**
- (21) International Application Number: **PCT/GB2004/000742**
- (22) International Filing Date: 24 February 2004 (24.02.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:  
 0304124.1 24 February 2003 (24.02.2003) GB  
 0325699.7 4 November 2003 (04.11.2003) GB
- (71) Applicant and  
 (72) Inventor: LUUFFMAN, Charles, Raymond [GB/DE];  
 Dorfstrasse 22B, 15910 Staakow (DE).
- (74) Agent: LAURENCE SHAW & ASSOCIATES LIMITED; 1 Hagley Road, Edgbaston, Birmingham B16 8TG (GB).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

**Published:**

— without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: AIRCRAFT



(57) Abstract: An aircraft comprising an envelope (6) that is inflatable with a lifting gas that is lighter than air that, at least when inflated has curved upper and lower surfaces. The aircraft has a payload carrying means (5), and an aerodynamic lifting means (8) for creating a vertical annular flow of air that induces a flow of air over the respective upper or lower surface (12, 14) of the envelope (6.). One form of aerodynamic generator (8) comprises a plurality of aerofoil blades (20) mounted for rotation around a periphery of the envelope (6).

WO 2004/074091 A2